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| 10/022,838 | 12/20/2001 | Atsushi Shibata | 62807-024 | 1467 |

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EXAMINER
CHANKONG, DOHM

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| ART UNIT 2152 | PAPER NUMBER |
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DATE MAILED: 08/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | | |
|------------------------------|------------------------|--|---------------------|--|
| Office Action Summary | Application No. | | Applicant(s) | |
| | 10/022,838 | | SHIBATA, ATSUSHI | |
| | Examiner | | Art Unit | |
| | Dohm Chankong | | 2152 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1> This action is in response to Applicant's amendment, filed 6.23.2006. Claims 9, 11, 19, 21, 28 and 30 are amended. Claims 9-36 are presented for further examination.

2> Applicant's amendment was in response to the indicated allowability of certain subject matter. However, upon further consideration of the prior art references and of the amended claim language, the indicated allowability of the subject matter is withdrawn.

Rejections based on the new reference interpretation follow.

Since Applicant's amendment was solely in response to the Office's indication of allowable subject matter, this action is a non-final rejection to give Applicant the opportunity to properly respond to this action.

Response to Arguments

3> Applicant's arguments and amendments have been fully considered but they do not overcome the prior art references. Applicant's amendment is directed towards providing a virtual path communication between management proxies. Boden discloses this newly amended limitation.

Boden discloses establishing a virtual tunnel between gateways of different networks [Figure 2 «items 470, 472, 482» | column 4 «lines 10-13» | column 5 «lines 16-25»]. The Office interprets Boden's gateways as corresponding to the claimed management protocol proxies and Boden's virtual tunnel as corresponding to a virtual path that connects the proxies.

Boden discloses that each of the networks have different domains [Figure 7], and the

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gateways are responsible for managing the addresses or protocols between the different networks [Figure 2 «items 462, 466» | column 3 «lines 1-3»]. Therefore, Boden discloses the newly amended limitation.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4> Claim 9 -36 are rejected under 35 U.S.C. 102(b) as being anticipated by Denison et al, U.S Patent No. 6,581,108 ["Denison"], in view of Boden et al, U.S Patent No. 6,832,322 ["Boden"].

5> In regards to claim 9, Denison et al. disclose a management protocol proxy (102) for performing network management between different networks connected via an Internet Protocol (IP) Network address Translator (104), comprising:

a address translation process unit that translates a transmission source address contained in a packet of a management protocol transmitted from a monitor apparatus on a network ((112-1 to 112-N) connected by the management protocol proxy (102) into a management address belonging a and address system different from an address system

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defined by the NAT (e.g. translation by a different address system than a NAT performed by 102-col. 3 ll. 22-26, col. 3 ll. 31-43)

an assembly/disassembly processing unit that generates management protocol proxy data including the packet of management protocol after the address translation, a transmission source address in which an address of the management protocol proxy is sent, and a transmission destination address in which an address of another management protocol proxy (106) is set (e.g. col. 3 ll. 28-30)

a communication unit that transmits the management protocol proxy data to said another management protocol proxy (106) designated by the transmission destination address (e.g. col. 3 ll. 28-30).

Dennison does not explicitly recite "transmission destination address in which an address of another management protocol proxy setting an address to that of another management".

Dennison does not disclose providing a virtual path communication between the proxies.

6> Boden discloses translating an address to a management address that belongs to an address system different from an address system defined by the NAT [Figure 2 | column 4 «lines 6-13»]. Boden additionally discloses providing a virtual path communication between the management proxies [Figure 2 «item 482»]. The address translation, and assembly/disassembly unit that generates proxy data, takes place at the DNS server at each network, and not at a NAT. Thus the addressing system is different from an address system defined by the NAT. Boden discloses that the benefits of his invention alleviates a problem of address management, communicating between different networks and address systems,

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behind NATs [column 2 «line 62» to column 3 «line 3»]. Thus, it would have been obvious to one of ordinary skill in the art to modify Denison's network address management system with the address translation methods as taught by Boden to provide a simpler means for networks of different addressing domains to traverse NATs. Providing a virtual tunnel communication between the proxies helps to provide a layer of security in communicating between the two networks [see Boden, column 5 «lines 26-40»].

7> In regards to claim 10, Dennison discloses the management protocol proxy according to claim 9, further comprising:

an address translation definition (e.g. look up process in a translation table col. 5-6) in which correspondence relationships between management address belonging to the different address system and real address (e.g. address translation on payload packets PDUs col. 4 ll. 24-38, col. 5 ll. 1-6) are defined,

wherein the address translation-processing unit (e.g. look up process col. 5-6) translates the transmission source address contained in the packet of management protocol into a management address (e.g. IP address replaced with translated IP address col. 4 ll. 36-37), based on the address translation definition (e.g. address translation on payload packets PDUs col. 4 ll. 24-38, col. 5 ll. 1-6).

8> In regards to claim 11, Dennison et al. discloses the management protocol proxy according to claim 10, wherein the address translation processing unit further translates

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address information in data contained in the packet of management protocol (e.g. SNMP packet col. 3 ll. 55-60)

9> In regards to claim 12, Dennison et al. discloses the management protocol proxy according to claim 11, wherein:

the management protocol proxy is Simple Network Management Protocol Proxy (e.g. SNMP packet col. 3 ll. 55-60),

the packet of the management protocol comparisons and SNMP message, and the data contain in the packet of the management protocol is a Protocol Data Unit (PDU) (col. 4 ll. 24-30)

10> In regards to claim 13 to Claim 17, Dennison disclose the management protocol proxy according to claim 9, wherein the management protocol proxy comprises a proxy server (102, col. 3 ll. 44-55).

11> In regards to claim 18, Denison disclose the management protocol proxy according to claim 9, wherein the translation of the transmission source address by the address translation processing unit translates the transmission source address into a virtual address (e.g. translation by a different address system than a NAT performed by 102-col. 3 ll. 22-26, col. 3 ll. 31-43)

12> In regards to claim 19, Denison discloses that which is recited in claim 19 for the same reasons as disclosed in the rejection of claim 1 above.

13> In regards to claim 20 , Denison discloses that which is recited in claim 20 for the same reasons as disclosed in the rejection of claim 2 above.

14> In regards to claim 21 , Denison discloses that which is recited in claim 21 for the same reasons as disclosed in the rejection of claim 11 above.

15> In regards to claim 22 , Denison discloses that which is recited in claim 22 for the same reasons as disclosed in the rejection of 15 above.

16> In regards to claim 23 , Denison discloses the method according to claim 22, wherein the translation of address information in data contained in the packet of management protocol comprises translating address information contained in the PDU of the SNMP message using the address translation definition and an Abstract Syntax Notation One (ASN.1) define statement of a MIB object to be translated. (see. col. 3 ll. 55-60, col. 4 ll. 7-23).

17> In regards to claim 28, Denison discloses a program product comprising a computer readable storage medium and executable programming embodied on the medium where execution of the programming causes a programmable device to perform network

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management between different networks connected via an Internet Protocol (IP) Network address Translator (col. 3 ll. 44-50, col. 4 ll. 8-13, claims 10-20), comprising:

translating a transmission source address contained in a packet of a management protocol transmitted from a monitor apparatus on a network (112-1 to 112-N) connected by the management protocol proxy (102) into a management address belonging a and address system different from an address system defined by the NAT (e.g. translation by a different address system than a NAT performed by 102-col. 3 ll. 22-26, col. 3 ll. 31-43)

generating management protocol proxy data including the packet of management protocol after the address translation, a transmission source address in which an address of the management protocol proxy is sent, and a transmission destination address in which an address of another management protocol proxy (106) is set (e.g. col. 3 ll. 28-30)

transmitting the management protocol proxy data to said another management protocol proxy (106) designated by the transmission destination address (e.g. col. 3 ll. 28-30).

18> In regards to claim 29, Dennison discloses the product according to claim 28, wherein the translating of the transmission source comprises translating the transmission source address contained in the packet of management protocol (e.g. SNMP packet col. 3 ll. 55-60) into a management address (e.g. IP address replaced with translated IP address col. 4 ll. 36-37), based on the address translation definition (e.g. address translation on payload packets PDUs col. 4 ll. 24-38, col. 5 ll. 1-6).

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19> In regards to claim 30, Denison discloses the product according to claim 29, wherein the steps performed further comprise translating address information in data contained in the packet of management protocol (e.g. SNMP packet col. 3 ll. 55-60).

20> In regards to claim 31, Dennison et al. discloses the product according to claim 30, wherein:

the management protocol proxy is Simple Network Management Protocol Proxy (e.g. SNMP packet col. 3 ll. 55-60),

the packet of the management protocol comparisons and SNMP message, and the data contain in the packet of the management protocol is a Protocol Data Unit (PDU) (col. 4 ll. 24-30)

21> In regards to claim 32, Denison discloses the product according to claim 31, wherein translating of address information in data contained in the packet of management protocol comprises translating address information contained in the PDU of the SNMP message using the address translation definition and an Abstract Syntax Notation One (ASN.1) define statement of a MIB object to be translated. (see. col. 3 ll. 55-60, col. 4 ll. 7-23).

22> In regards to claim 18, Denison disclose the product according to claim 28, wherein translating the transmission source address by the address translation processing unit translates the transmission source address into a virtual address (e.g. translation by a different address system than a NAT performed by 102-col. 3 ll. 22-26, col. 3 ll. 31-43)

23> Claims 9, 10, 14, 17-20, 24, 27-30, 33 and 36 are rejected under 35 U.S.C § 103(a) as being unpatentable over Crump et al, U.S Patent No. 6.892.245 ["Crump"], in view of Boden.

24> As to claim 9, Crump discloses a management protocol proxy for performing network management between different networks connected via an Internet Protocol (IP) Network Address Translator (NAT) [Figure 1 : local DNS servers], comprising:

an address translation processing unit that translates a transmission source address, contained in a packet of management protocol transmitted from a monitored apparatus on a network connected by the management protocol proxy, into a management address [Figure 1 | column 1 «line 65» to column 2 «line 15» | column 7 «lines 30-51» where : Crump's local DNS servers correspond to a protocol proxy, each DNS server in a separate address];

an assembly|disassembly processing unit that generates management protocol proxy data including the packet of management protocol after the address translation, a transmission source address in which an address of the management protocol proxy is set, and a transmission destination address in which an address of another management protocol proxy is set [Figures 2A-2D | Figure 10A | column 3 «lines 29-61»]; and

a communication unit that transmits the management protocol proxy data to said another management protocol proxy designated by the transmission destination address [Figure 1 | column 8 «lines 20-59» : "Local DNS servers"].

Crump does not expressly disclose the management address belongs to an address system different from an address system defined by the NAT.

25> Boden discloses translating an address to a management address that belongs to an address system different from an address system defined by the NAT [Figure 2 | column 4 «lines 6-13»]. Boden additionally discloses providing a virtual path communication between the management proxies [Figure 2 «item 482»]. The address translation, from the network address into a separate virtual network address, takes place at the DNS server at each network, and not at a NAT. Thus the addressing system is different from an address system defined by the NAT. Boden discloses that the benefits of his invention alleviates a problem of address management, communicating between different networks and address systems, behind NATs [column 2 «line 62» to column 3 «line 3»]. Thus, it would have been obvious to one of ordinary skill in the art to modify Crump's network address management system with the address translation methods as taught by Boden to provide a simpler means for networks of different addressing domains to traverse NATs.

26> As to claims 10 and 14, Crump and Boden disclose the management protocol proxy further comprising:

an address translation definition in which correspondence relationships between management addresses belonging to the different address system and real addresses are defined [see Crump, Figures 10B, 12A-P | Boden, column 7 «lines 1-18»],

wherein the address translation processing unit translates the transmission source address contained in the packet of a management protocol into a management address, based on the address translation definition [see Crump, Figure 10B].

27> As to claim 11, Crump further discloses translating address information in data contained in the packet of management protocol [column 10 «lines 25-34»].

28> As to claim 17, Crump discloses a proxy server [Figure 1].

29> As to claim 18, Crump does not expressly disclose translating into a virtual address. Boden discloses translating a transmission source address into a virtual address [column 7 «lines 3-18»]. It would have been obvious to one of ordinary skill in the art to modify Crump to include Boden's virtual address translation. One would have been motivated to provide such a combination to enable better address resolution.

30> As to claims 19, 20, 24, 27-30, 33 and 36, as they do not teach or further define over the previously claimed limitations, they are similarly rejected for at least the same reasons set forth for claims 1, 2, 10, 11 and 18.

Conclusion

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dohm Chankong whose telephone number is 571.272.3942.

The examiner can normally be reached on Monday-Thursday [7:30 AM to 4:30 PM].

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on 571.272.3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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